

A NEW SPECIES OF *LOBELIA* L. (CAMPANULACEAE:
LOBELIOIDEAE) FROM VICTORIA AND SOUTH AUSTRALIA.

by

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ABSTRACT

Albrecht, D.E. A new species of *Lobelia* L. (Campanulaceae: Lobelioideae) from Victoria and South Australia. *Muelleria* 7(4): 525–528 (1992). — *Lobelia beagleholei* sp. nov. is described and illustrated, with notes on distribution, conservation status, habitat and relationships to some other species of *Lobelia* and *Pratia*.

INTRODUCTION

The opportunity is here taken to formally describe an entity known for many years as *Pratia* sp. aff. *purpurascens* (R. Br.) Wimmer. The name *P.* sp. aff. *purpurascens* was first adopted by Willis (1973) and has been perpetuated in several subsequent publications, including Toelken (1986) and Ross (1990). Examination of a range of herbarium specimens and populations *in situ* has confirmed the distinctiveness of this taxon and somewhat surprisingly revealed that its rightful placement is in *Lobelia* rather than *Pratia*.

TAXONOMY

Lobelia beagleholei D.E. Albrecht sp. nov.

Lobelia membranaceae affinis sed seminibus majoribus, capsulis latioribus, tubo corollae divisio minus profunde, superis lobis corollae latioribus, et setis terminantibus antheras infernas longioribus differt.

HOLOTYPE: Victoria, Lower Glenelg River area, Red Gum Swamp, S of Greenwald, 17 Jan. 1965, A.C. Beaglehole 6519 (MEL 540822).

Rhizomatous perennial herb. Stems decumbent, glabrous or rarely with scattered spreading hairs, rooting at nodes. Primary roots 0.5–1.2 mm diameter. Leaves alternate; blades slightly discoloured, ± tinged purplish on undersurface, the lowermost orbiculate, spatulate, oblate, ovate, obovate or elliptic, the uppermost ovate to lanceolate, 4–22 mm long, 3–20 mm wide, reducing in size along stem, glabrous or occasionally with scattered fine hairs, margins subentire, or with 2–8 widely spaced short teeth or shallow lobes on either side, each tooth or lobe with a minute translucent region at apex, apex obtuse to acute; petiole to 15 mm long, reduced in the uppermost leaves. Flowers axillary, solitary, borne at irregular intervals along the stem, bisexual, protandrous. Pedicels (1–)3–11 cm long, glabrous or rarely with scattered hairs towards the base, usually strongly recurved at distal end in fruiting specimens. Hypanthium obconical, glabrous. Calyx lobes erect, subulate, 1.4–2.5 mm long, glabrous or rarely with marginal hairs, often with a tooth on either side towards the base. Corolla subbilabiate, (8–)9–12 mm long, glabrous externally; upper two lobes spreading or erect, light violet (Methuen colour code 18A5) on both surfaces, narrowly elliptic to oblanceolate, 3.5–6.5 mm long, 1–2.5 mm wide, glabrous to scabridulous on upper surface and margins, acute; lower three lobes spreading, light violet, becoming white towards the base with a prominent green ridge extending from the sinus between each lobe into the tube, oblanceolate to obovate, 4.5–8.5 mm long, 1.5–4 mm wide, glabrous to scabridulous on upper surface and margins, acute; tube split along the upper side to 1.2–2 mm from base, white to light green externally, white internally, 3.3–4.8

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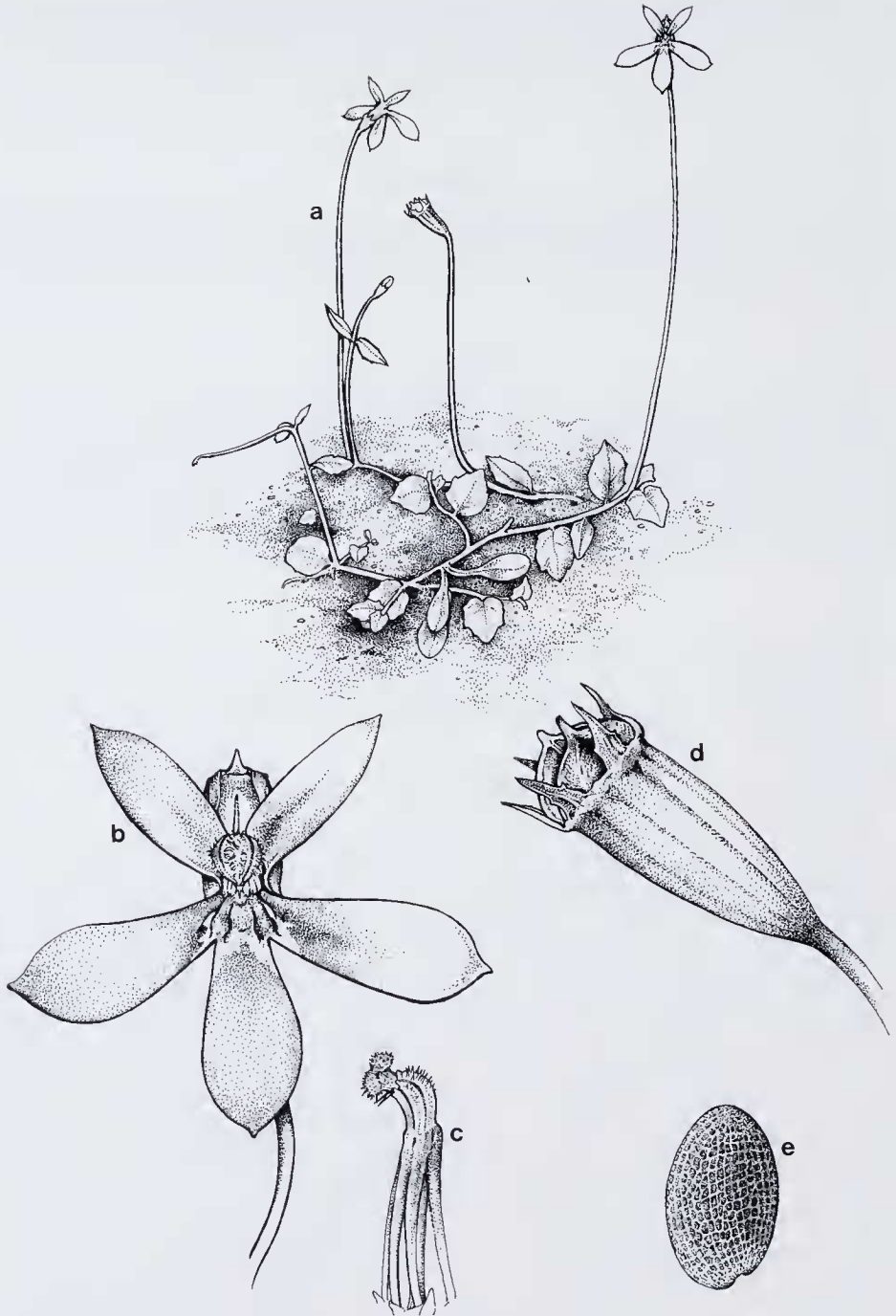


Fig. 1 *Lobelia beagleholei*. a-habit, $\times 1$. b-flower, $\times 5$. c-partially fused staminal filaments, anther tube and protruding stigma, $\times 6$. d-capsule, $\times 5$. e-seed, $\times 25$. a-d from Barnett s. n.; e from Beaglehole 6519.

mm long, with fine retrorse hairs internally. *Filaments* adnate to the corolla tube, fused for c. 1 mm at distal end, green at base, white above and deep blue (Methuen colour code 19E8) below anther tube, 3.7–4.5 mm long, glabrous to scabridulous. *Anther tube* blue-black (Methuen colour code 19F3), 1.2–1.7 mm long, the exterior surface of the three upper anthers with few to many fine acute hairs c. 1.5 mm long, the apex of the two lower anthers each with a seta 0.3–0.6 mm long and a cluster of short thick hairs 0.1–0.2 mm long. *Stigma* protruding from apex of anther tube at maturity, 2-lobed and girt with a ring of hairs. *Capsule* obconical, slightly compressed, 5.5–10.5 mm long, 3–5.5 mm wide, glabrous, apical valves raised 1.2–2.5 mm above the base of the calyx lobes, dehiscing loculicidally. *Seeds* light brown, ellipsoid, slightly compressed, 1–1.1 mm long, 0.5–0.6 mm wide, testa minutely perforated. (Fig. 1)

ETYMOLOGY:

The specific epithet honours Mr A. Cliff Beaglehole of Portland, who recognised the distinctiveness of this taxon some 45 years ago and whose collections comprise the majority of herbarium specimens of it.

REPRESENTATIVE SPECIMENS (18 specimens examined):

Victoria — Bushland Reserve 19 km S of Colac P.O., 25 Jan. 1979, *A.C. Beaglehole* 63786 (MEL 118292); Otways, Bridge track, 38°33'25"S, 143°37'30"E, 8 Dec. 1984, *G.E. Earl s.n.* (MEL 115819); Otways, c. 0.75 m N of the junction of Mt McKenzie road and Hargreave track, 27 Dec. 1973, *A.C. Beaglehole* 43859 (MEL 540821); Otways, Lavers Hill road, 38°40'S, 143°20'E, 7 Dec. 1985, *P.F. Barnett s.n.* (MEL 1545309); Flora and Fauna Reserve c. 30 km E of Warrnambool P.O., 29 Jan. 1979, *A.C. Beaglehole* 63835 (MEL 118293); Carpendit Reference Area 32 km WSW of Colac P.O., 13 Dec. 1979, *A.C. Beaglehole* 67279 (MEL 118291); Portland District, Gorae West, Nov. 1946, *A.C. Beaglehole s.n.* (MEL 540828); Curdies River, Dec. 1873, *F. Mueller s.n.* (MEL); Island Swamp c. 4.5 km S of Greenwald, 38°01'00"S, 141°23'00"E, 15 Feb. 1991, *D.E. Albrecht* 4736 (MEL 224622); Unnamed swamp c. 0.5 km NNW of Four Corners, 38°03'15"S, 141°23'00"E, 15 Feb. 1991, *D.E. Albrecht* 4739 (MEL 224621); Unnamed circular swamp c. 5.5 km due SE of Greenwald, 38°00'40"S, 141°25'45"E, 15 Feb. 1991, *D.E. Albrecht* 4732 (MEL 224623).

South Australia — South-eastern region, Glencoe Swamp, 37°35'S, 140°30'E, 6 Mar. 1977, *R. Bates* 2633 (AD 97714073).

DISTRIBUTION AND CONSERVATION STATUS:

In Victoria the species is regarded as rare (Gullan *et al.*, 1990) being known from relatively few scattered sites in the Otways and far south-west regions. Fortunately most known populations occur in biological reserves and at least some consist of numerous plants. In South Australia the species is known from only one site in the south-east and should be regarded as rare in that state.

HABITAT:

Lobelia beagleholei occurs exclusively on black organic loam soils, in the vicinity of swamps and drainage lines at altitudes below 200 m. It has been recorded from a range of structural vegetation types typical of wetlands, including herbfield, wet scrub, woodland and fringing damp sclerophyll forest. Associated species include *Eucalyptus camaldulensis*, *Eucalyptus ovata*, *Melaleuca squarrosa*, *Centella cordifolia*, *Goodenia humilis*, *Gonocarpus micranthus*, *Juncus procerus*, *Lobelia pratiodes*, *Pratia puberula* sensu Toelken (1986) and *Pratia pedunculata* sensu Toelken (1986).

DISCUSSION:

Fruit type is the primary character used to separate *Lobelia* (with dehiscent fruits) from *Pratia* (with indehiscent fruits). As the new species has capsular fruit there seems little doubt that it should be placed in *Lobelia* rather than in *Pratia*.

Although the new species has been likened to *Pratia purpurascens* (R. Br.) F. Wimmer (also known as *Lobelia purpurascens* R. Br. in Queensland), it appears to be more closely allied to the Queensland species *Lobelia membranacea* R. Br.

Bentham (1868) tentatively referred specimens collected by Robinson from the Fitzroy River (far south-west Victoria) to *Lobelia membranacea*. I have not examined Robinson's specimens, which are housed at Kew, but it is probable that they are *Lobelia beaugleholei*. *Lobelia beaugleholei* and *Lobelia membranacea* are readily separated on seed shape and size, the former having ellipsoid seeds 1–1.1 mm long and 0.5–0.6 mm wide, the latter having more or less orbiculate seeds c. 0.4 mm diameter. *Lobelia beaugleholei* also differs from *Lobelia membranacea* in having broader capsules (≥ 3 mm, cf. ≤ 3 mm in *Lobelia membranacea*), less deeply split corolla tubes (divided to 1.2–2 mm from base, cf. ≤ 1 mm in *Lobelia membranacea*), broader upper corolla lobes (≥ 1 mm, cf. usually ≤ 1 mm in *Lobelia membranacea*) and longer setae terminating the lower anthers (≥ 3 mm, cf. ≤ 3 mm in *Lobelia membranacea*).

Pratia purpurascens differs from *Lobelia beaugleholei* in having more uniform, elliptic to ovate leaves that are usually strongly toothed, spreading to recurved calyx lobes, functionally unisexual flowers with white corollas that are tinged pink or purplish on the underside of the lobes and tube, narrower corolla tubes, markedly dissimilar upper and lower corolla lobes (the upper lobes less than half the width of the lower lobes), and seeds with a pitted rather than perforated testa. *Pratia purpurascens* occurs in far eastern Victoria and extends northwards along the eastern coast of Australia to southern Queensland.

Lobelia beaugleholei often grows with *Pratia puberula* Benth. (*sensu* Toelken 1986) and *Pratia pedunculata* (*sensu* Toelken 1986) and occasionally collectors have inadvertently gathered more than one taxon in a collection. *Lobelia beaugleholei* can be distinguished from both taxa by the less leafy habit, the larger lower leaves with longer petioles, the larger bisexual flowers with light violet corolla lobes, the presence of fine acute hairs on the upper surface of the anther tubes, the capsular (rather than indehiscent) fruits and the larger seeds with a perforated testa.

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REFERENCES

- Bentham, G. (1868). 'Flora Australiensis: a Description of the Plants of the Australian Territory'. Vol 4. (Reeve: London.) pp. 129–130.
- Gullan, P.K., Cheal, D.C. & Walsh, N.G. (1990). 'Rare or Threatened Plants in Victoria'. (Department of Conservation and Environment: Melbourne.)
- Kornerup, A. & Wanscher, J.H. (1978). 'Methuen Handbook of Colour'. 3rd edn. (Methuen: London.)
- Ross, J.H. (1990). 'A Census of the Vascular Plants of Victoria'. 3rd edn. (National Herbarium of Victoria: Melbourne.)
- Toelken, H.R. (1986). Campanulaceae — *Pratia*. In J.P. Jessop & Toelken, H.R. (eds), 'Flora of South Australia'. (South Australian Government Printing Division, Adelaide) pp. 1374–1376.
- Willis, J.H. (1973). 'A Handbook to Plants in Victoria'. Vol 2. (Melbourne University Press: Carlton.) p. 631.